

A NEW COMBINATION IN CYMOPHORA
(COMPOSITAE: HELIANTHEAE: GALINSOGINAE)

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Specimens of *Tridax* L. and *Cymophora* B. L. Robins. were examined by the author during studies of the generic and specific relationships of *Galinsoga* Ruiz & Pavon (Canne, in press a, b). A recent, additional study of several specimens of the relatively poorly known *Tridax venezuelensis* Arist. & Cuatr. indicate that this species falls within the concept of *Cymophora* as discussed by Turner and Powell (1977). The transfer of *T. venezuelensis* to *Cymophora* is made here and comments are included concerning interspecific relationships in *Cymophora*.

Tridax venezuelensis shares features of the pappus, achenes, and capitulescence with *T. dubia* Rose and *Cymophora accedens* (S. F. Blake) Turner & Powell while resembling *Galinsoga* in several vegetative and floral features (Aristeguieta, 1964; Powell, 1966). However, both *T. venezuelensis* and *C. accedens* possess additional features that do not occur, or occur only rarely, in *Tridax* and *Galinsoga*. These are the white to creamy yellow corolla color; paniculate capitulescence; angular disc achenes; and the cylindrical to subcampanulate involucre that characterize *Cymophora*. *Tridax venezuelensis* differs from *Tridax* proper in achenes glabrous to strigose, not densely long villous or pilose; pappus of fimbriate scales rather than plumose bristles; and heads less than 8 mm diameter. The transfer of *T. venezuelensis* to *Cymophora* is made on the basis of these morphological comparisons.

Cymophora venezuelensis (Arist. & Cuatr.) Canne, comb. nov.

Tridax venezuelensis Aristeguieta & Cuatrecasas, Flora de Venezuela 10:694. 1964. TYPE: VENEZUELA: MIRANDA, La Providencia, Sep 1936, H. Pittier 13754 (HOLOTYPE, VEN; ISOTYPES, F! US!; PARATYPES, V. M. Badillo 271, 772, VEN; H. Eggers 13508, US!; H. Pittier 11152, GH! NY! P! US!).

Additional specimens examined: VENEZUELA: DISTRITO FEDERAL, between Naiguatá and Hacienda Cocuizal, 7 Oct 1966, J. Steyermark 97465 (F); above Chichiriviche, 1 Jul 1966, J. Steyermark & L. Aristeguieta 122 (NY, US). State and locality unknown, 9 Aug 1891, H. Eggers 13568 (US); 1865, Moritz s.n. (BM).

Cymophora venezuelensis is distinguished from the other three species in the genus by its pistillate ray florets with corollas having short inner lobelets. The peripheral florets of other species are perfect and have inconspicuously ligulate corollas. *Cymophora venezuelensis* differs in distribution as well, being known only from northern Venezuela, whereas other species of *Cymophora* occur in south central Mexico.

The four species of *Cymphora* fall into two rather well-defined morphological groups that presumably reflect closeness of relationship. *Cymphora venezuelensis* and *C. hintonii* Turner & Powell have ovate to trullate leaves with coarsely serrate margins, petioles 2–5 cm long, phyllaries with 15–20 veins, and, in *C. venezuelensis*, pales with 8–16 veins but pales absent in *C. hintonii*. In contrast, *C. accedens* and *C. pringlei* B. L. Robins. have ovate to ovate-lanceolate leaves with sub-entire to serrate margins, petioles to 2 cm long, phyllaries with 4–9 veins, and pales with 3–5 veins. Nomenclatural recognition of these species groups seems unnecessary in such a small genus until warranted by additional knowledge of the biology of the species.

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REVIEW

California Mushrooms, a Field Guide to the Boletes. By HARRY D. THIERS. vii + 261, 4 figs., colored microfiche with 54 figs. Hafner Press, New York. 1975. \$15.95.

Californians interested in the boletes now have a treatise prepared by an internationally recognized student of this taxonomically difficult group. Previous comprehensive treatments of this group in North America have emphasized eastern species. Various popular mushroom books have included a few bolete species, but the identification of all but the most common and unique California bolete species was essentially impossible, except for the specialists. It is perhaps a bit optimistic to expect that everyone, even with the aid of Professor Thiers' book, will be able to identify bolete species without a good compound microscope and a good deal of effort and experience. Nevertheless, this book provides a means, regardless of previous training, for anyone to learn the California bolete flora.

Recent taxonomic studies, including this work, in the Boletaceae and of other groups of fungi strongly suggest that there is a greater diversity of fungal species than previously thought. Thus, regional taxonomic treatments rather than worldwide, or even continental, monographs will probably become the objective of the fungal taxonomist, especially those working with the taxa of the saprobic basidiomycetes. Professor Thiers' publication on the Boletaceae of California places this group among the few fungal taxa that are *relatively* well known in any region in North America. Even so, as the author emphasizes, this publication probably represents only a firm starting point for an understanding of the bolete species in California.

The author has wisely based his species descriptions on those specimens housed